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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,283	09/26/2000	Kumar Swaminathan	PD-990128	5675

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THE DIRECTV GROUP INC
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P.O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER

NGUYEN, STEVEN H D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/669,283

Applicant(s)

SWAMINATHAN ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,11,12,14,17,18,22,25,26,28,31,32,38,39,41,44,45,51 and 52 is/are rejected.
- 7) ☒ Claim(s) 2,3,6-10,13,15,16,19-21,23,24,27,29,30,33-37,40,42,43,46-50 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 32 is objected to because of the following informalities: "method" should be changed to -- system --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 11, 14, 22, 25, 28, 38, 41 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Tarraf (USP 6351495).

Regarding claims 1, 14, 28 and 41, Tarraf discloses (Fig 1-4 and col. 1, lines 15 to col. 11, lines 53) a method comprising the steps of receiving an input signal (Fig 2, Ref 202); generating a teletypewriter (TTY) indicator signal from the input signal (Fig 2, Ref 202 detects the TTY signal and generating a control signal to indicate the received signal being TTY signal); determining that the input signal is a TTY signal corresponding a TTY character, based on the TTY indicator signal (Col. 6, lines 55-65); and constructing a TTY packet including the TTY character of the TTY signal in response to determining that the input signal is a TTY signal (Fig 2, Ref 206).

Regarding claims 11, 25, 38 and 51, Tarraf discloses (Fig 1-4 and col. 1, lines 15 to col. 11, lines 53) a method comprising the steps of receiving a bitstream (Fig 4, Ref 408, Sec A); determining that a TTY character is present in the received bitstream (Fig 4, Ref 408, Sec A); validating the TTY character (Fig 4, Ref 408, Sec C and D); synthesizing a TTY signal from the TTY character (Fig 4, Ref 408, Sec E and F); and outputting the synthesized TTY signal if the TTY character is validated by a selector (Fig 4, Ref 408, Sec F and Fig 2, Ref 212).

Regarding claim 22, Tarraf discloses a selector coupled to the encoder and configured to output the TTY packet if the encoder determines that the input signal is a TTY signal (Fig 2, Ref 210).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4, 17, 31 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarraf in view of Jangi (USP 5666357).

Regarding claims 4, 17, 31 and 44, Tarraf fails to disclose the step of overwriting at least one speech packet with the TTY packet. In the same field of endeavor, Jangi discloses a method and system for transmitting tone packet by replacing the voice packet with tone packet.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for replacing some of voice packets with tone packets as disclosed Jangi into a method and system of Tarraf. The motivation would have been to prevent error during the transmission.

7. Claims 5, 18, 32 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarraf in view of Arnaud (USP 6650662).

Regarding claim 5, 18, 32 and 45, Tarraf fails to disclose the step of determining comprises validating a start character bit of the TTY character; validating at least one end character bit of the TTY character; and validating a mark hold tone of the TTY character. In the same field of endeavor, Arnaud discloses a method and system for validating a start character bit of the TTY character; validating at least one end character bit of the TTY character; and validating a mark hold tone of the TTY character (Fig 2, Ref 203 and col. 5, lines 20-35 and Fig 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for filtering and validating the input signal as disclosed by Arnaud into the method and system of Tarraf. The motivation would have been to prevent error during the transmission.

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8. Claims 12, 26, 39 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarraf

Regarding claims 12, 26, 39 and 52, Tarraf fails to fully disclose the step of synthesizing comprises elastically buffering TTY character bits of the TTY character. However, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement an elastically buffer into a decoder for using to store the information before converting another type of signal because the buffer is well known and expected in the art and Tarraf's decoder should have a buffer for storing the decoded teletype information before converting a teletype signal.

Allowable Subject Matter

9. Claims 2-3, 6-10, 13, 15-16, 19-21, 23-24, 27, 29-30, 33-37, 40, 42-43, 46-50 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As claims 2, 15, 29 and 42, the prior arts fails to disclose the first bits of the TTY packet carry information and the remaining bits of the TTY packet are set to zero.

As claims 6, 19, 33 and 46, the prior arts fails to disclose the step of generating a TTY indicator signal comprises filtering the input signal to generate a filtered input signal; determining the local energies of the filtered input signal over portions of the filtered input signal; and generating the TTY indicator signal on the basis of the local energies of the filtered input signal.

As claims 13, 27, 40 and 53, the prior arts fails to disclose the step of elastically buffering comprises receiving the TTY character bits in a first buffer until the first buffer is full;

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transferring the TTY character bits from the first buffer to a second buffer if the second buffer is empty; and synthesizing the TTY signal from the TTY character bits stored in the second buffer until the second buffer is empty.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hofmann (USP 6012024) discloses a method and system for coding digital information.

Lee (USP 5710806) discloses a method and system for hearing impaired.

Engelke (USP 5517548) discloses a telecommunication system uses TDD protocol.

Underkoffler (USP 4426555) discloses a telephone device for hearing impaired person.

Jansson (USP 6345251) discloses a method and system encoding and decoding TTY signal.

Tarraf (USP 6434198) discloses a system and method for conveying TTY signals over wireless systems.

LaMedica (USP 6381472) discloses a system and method for TDD/TTY access.

Yue (USP 6628967) discloses a method and system for embedding the TTY signal into voice signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a horizontal line extending to the right.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
9/28/04